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G4V VAA V118

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US 5342049 A

US 4375286 A

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(54) Amusement apparatus

(57) Amusement apparatus comprises in combination, a CPU, a fruit machine type game and a pinball game, successful completion of the fruit machine game initiating play on the pinball game and successful completion of the pinball game leading to a further game on the fruit machine.

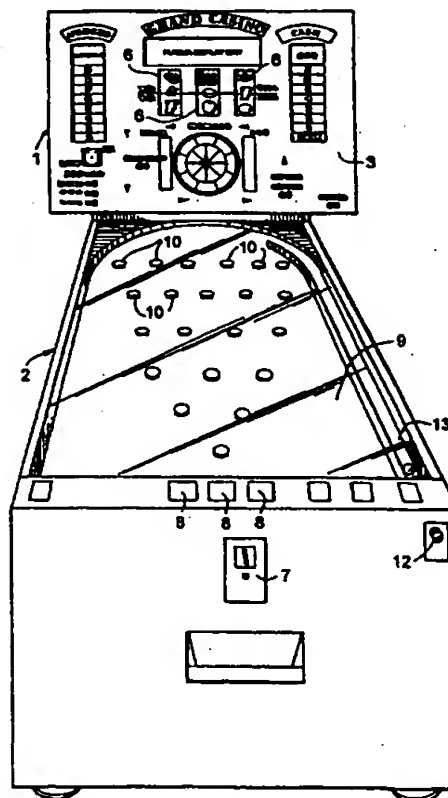


FIG. 1

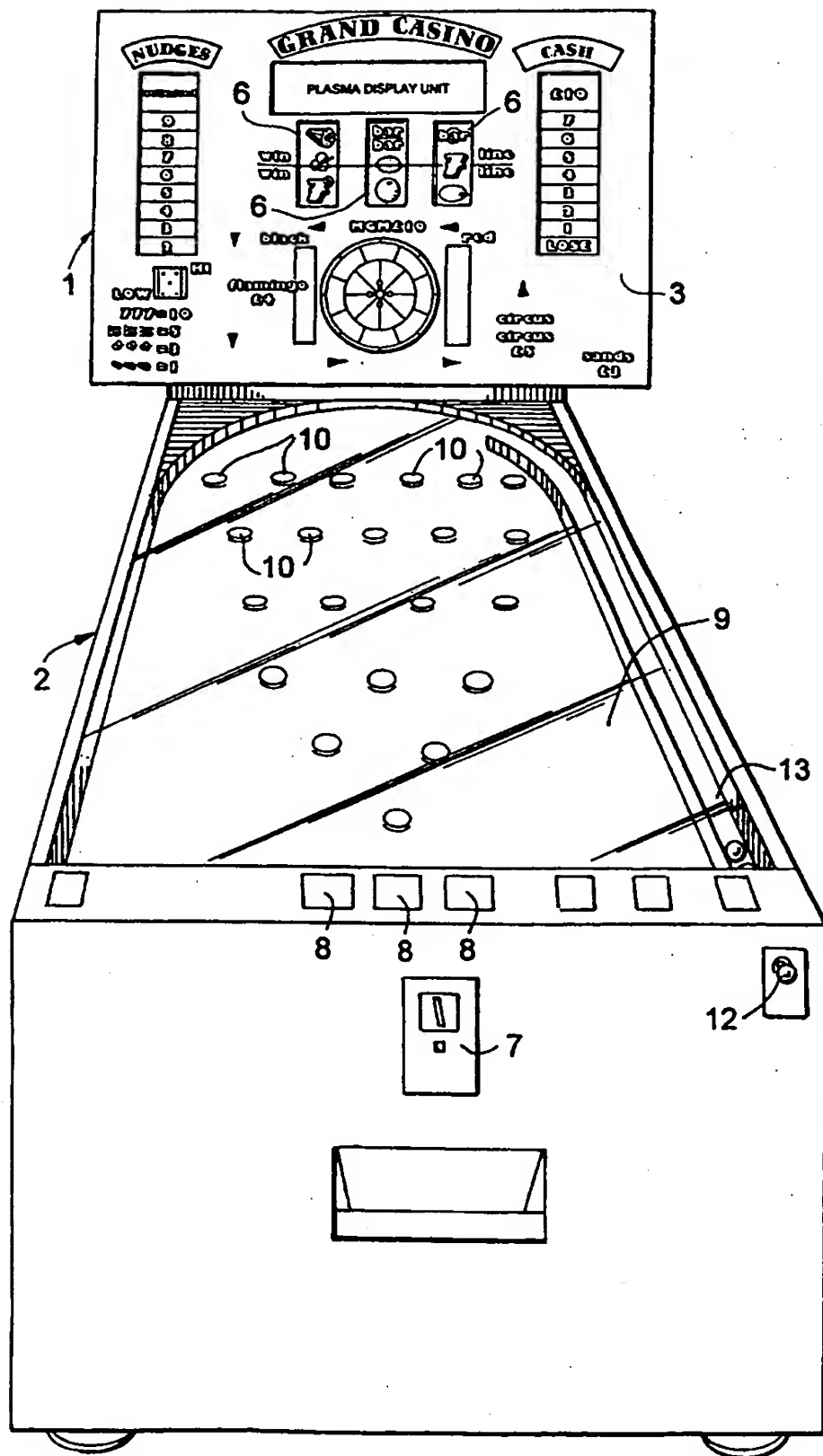
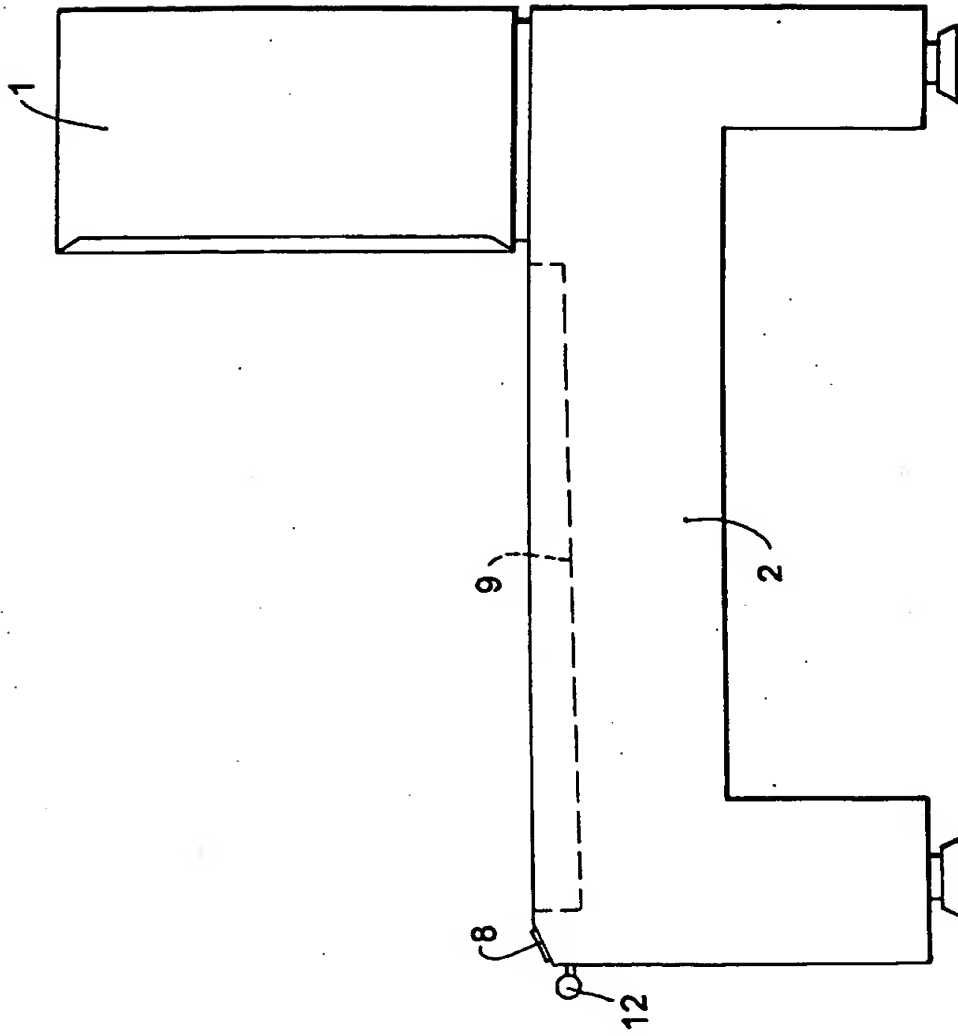
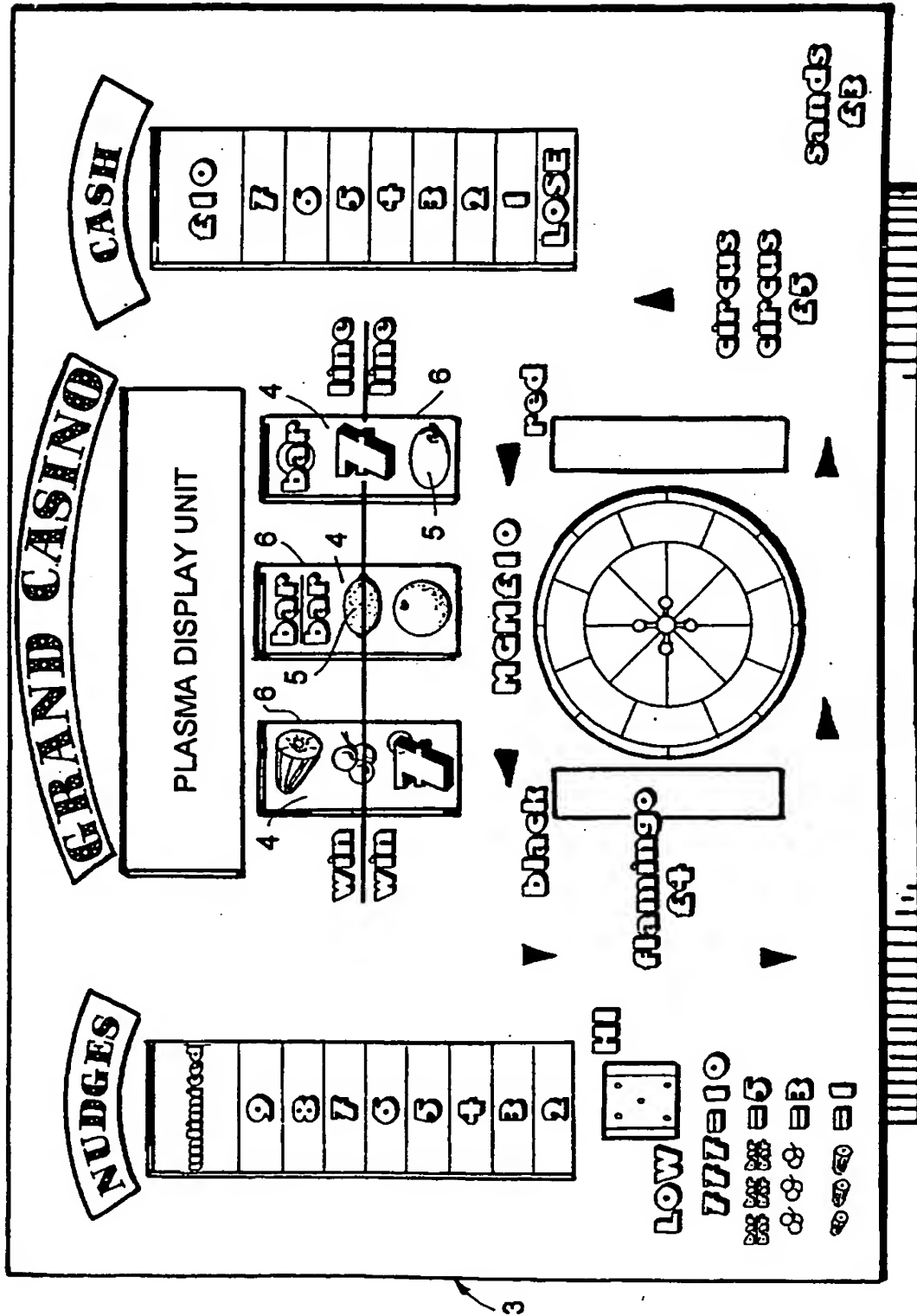


FIG. 1





**FIG. 3**

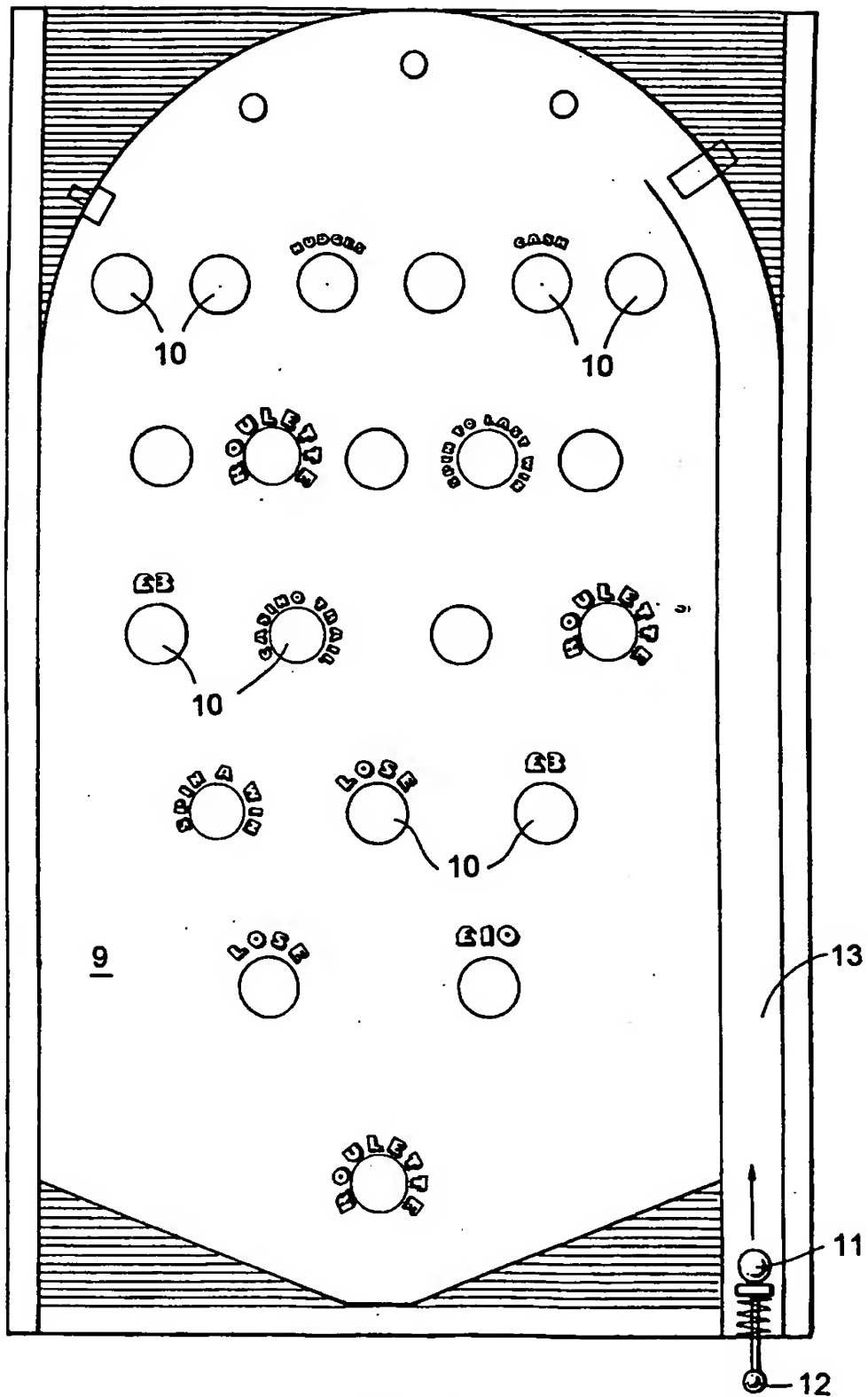


FIG. 4

## **AMUSEMENT APPARATUS**

The invention relates to an amusement apparatus, and particularly to an amusement apparatus adapted to award prizes.

One type of amusement apparatus, commonly known as a "fruit machine" includes a number of drums, typically three, mounted on independent axes in horizontal alignment behind respective windows in a front panel. Each drum has a number of symbols arranged around its periphery. Upon insertion of a coin or token into a coin or token receiving slot and actuation of a control button, the drums are caused to rotate. Rotation of the drums is controlled by a central processing unit which will stop each drum independently of the others. Where a specific combination of symbols is aligned and displayed on the windowed panel, the machine will pay out a predetermined monetary prize. The apparatus may include a display panel having flashing lights and illuminated pictures and further chances of winning are provided which involve, for example, stopping a flashing light over a particular design. Additional rewards may be granted in the form of free games or "nudges" where one or more drums are moved forward to display the next symbol in an attempt to obtain a winning combination of symbols.

During the 1960's the Bally Manufacturing Corporation of Chicago, Illinois, USA supplied a particular machine to milk bars and cafes.. They were called "Bingo" machines because when the player lit five symbols in a row a different number of free play credits was awarded to the player. The player lit up the symbols on the back panel, by shooting balls up an inclined bed, the balls would then run down the bed towards the player and fall into holes, which would then light up the

corresponding numbers on the back panel. The player would "cash" up his credits with the manager of the milk bar. Despite the fact that these games were popular their use was banned in the UK by the Gaming Board.

It is one object of the invention to provide amusement apparatus including a pin table type game which can lawfully be used in the UK and elsewhere.

According to the invention in one aspect there is provided an amusement apparatus comprising a central processing unit and a game of chance in combination with a machine having a game of skill, in which the central processing unit is arranged to present a minimum number of wins relative to the games paid for on the game of chance machine, one of the wins being arranged to enable play of the game of skill, the central processing unit also being arranged to present a play on the game of chance in the event of a win on the game of skill. In accordance with the British Gaming Act it is necessary for the operator to make a payout as a percentage of the takings from a game of chance. The payout may take the form of cash or a benefit in kind and in accordance with this invention one benefit in kind is the opportunity to play the pin table type of skill without having to make a cash payment. It is a feature of this invention that the central processing unit is arranged to cause the apparatus to pay out at least the minimum legal amount and to adjust the proportion of offers to play the game of skill according to the total winnings achieved and those which have already been taken in the form of cash payout.

Preferably, the central processing unit is arranged to present a selected proportion of wins on the game of chance which enable the game of skill.



In a preferred feature the game of chance is designed to appear very similar to a standard "Bingo" machine. In the back panel are set the reel mechanisms (drums) which have the symbols around their periphery. These reels are set behind a glass panel which carries on its front various legends which are features of the game. Other devices may be set behind the printed glass, one example being a roulette wheel.

The game of skill is preferably in the nature of a pin table, and preferably has a number of holes, about 25, arranged in rows of 7,6,5,4,3 (although this is only an example). Each hole corresponds to a feature on the back glass of the game of chance. At the bottom of this 'bed', nearest the player, are the control buttons for the game.

Preferably each machine has its own central processing unit and the units are connected to each other directly or via a master central processing unit or one master unit may be present.

In order that the invention may be well understood, it will now be described by way of example only with reference to the accompanying diagrammatic drawings in which:-

Figure 1 is a perspective view from the side and front of an amusement apparatus according to the invention;

Figure 2 is a side elevation;

Figure 3 is a view of the front of the amusement apparatus of Figure 1; and

Figure 4 is a plan view of the pin table.

The apparatus comprises a Bingo type game of chance machine 1 and a pin table game of skill machine 2. As shown, the front panel of the Bingo machine is located at the upper end of the pin table 2, remote from the player in use.

The Bingo machine comprises a housing 3 containing three rotatable drums 4, a motor (not shown) to rotate the drums, each of which has symbols 5 on its outer peripheral face. A window 6 is present on the front face of the housing, one per drum. Other playable games are present, as shown, such as NUDGES, CASINO TRAIL, CIRCUS, and the like.

The game of chance is actuated by a coin or token inserted in the slot 7 located at the front end of the pin table within easy reach of the player. The front end also includes the buttons 8 appropriate to the playing of the Bingo game.

The pin table 2 has a floor 9 which slopes towards the player at a gentle angle. The pin table has rows of holes 10. As shown clearly in Figure 4, each of the holes is related to a specific game of the bingo machine or a prize. The pin table game is played using a ball 11 which is driven by a player using a spring biased handle 12 and is directed to travel up a runway 13 along the floor 9, the skill of the player being to encourage the ball into a specific hole of high value. Beneath the hole is a suitable switch, e.g. optomechanical, to be actuated when the ball falls down below a metal grid, not shown, acting as a floor for the hole.

In use the player inserts a coin or coin(s) for credit in the slot 7, then presses the start button, one of the set 8. The reels 4 spin. If they stop in a line with the symbols showing a correct combination the machine pays into a 'bank' the winnings

for that combination. If, when the reels stop, they do not have the correct combination of symbols the game is over. Some symbols are 'overlaid' with a further symbol, in one example a 'ball'. When the reels stop three horizontal lines of symbols are visible, the centre line L being the winning line. If an 'overlaid' ball appears above or below the 'winning' line, that ball appears to bounce down or up on to the centre line. If three balls appear on the winning line at any one time the game of skill 2 is activated, e.g. a steel ball 11 is made available at the bottom right hand corner of the bed of the pin table 9. By back pulling the spring lever 12 and releasing, the ball 11 is caused to travel up a runway 13, away from the player. The bed 9 slopes slightly down towards the player. When the ball reaches the end of the runway the ball is released upon the playing surface of the bed. Because of the slight inclination of the bed towards the player the ball must run towards the player. The player can to a small degree influence the run of the ball by exerting pressure on the corners of the bed with his hands using a banging motion. Too much 'banging' activates a tilt switch (not shown) whereon the ball is lost. Ideally the player 'steers' the ball into one of the 25 holes, each hole representing one or more features on the back glass of the game of chance.

For example, the ball may go into the hole 10 marked '*Roulette Wheel*'. This may be arranged to cause the pseudo Roulette Wheel on the back glass of the housing 3 to spin and award a prize (or not) dependant on where it stops spinning, or the ball may go into a hole 10 marked 'nudges' where the three reels 4 on the back glass may, by the activation of the control buttons 8, be moved around to a winning combination.

The steel ball 11 would remain visible until the feature corresponding to the hole the ball lies in, has been played. The ball is released when a metal grid under all the

holes moves out of position allowing the ball to drop out of sight ready for the next game.

The lamps and ball sensors in the bed of section 2 are connected by multiplex wiring to section 1 and the central processor.

Therefore, the player initially plays the game of chance section of the apparatus, i.e. the reels on the back panel which work as a conventional gaming machine. Because this part of the machine works independently of the game of skill section it can award prizes or features, but when a combination of symbols such as the 'bouncing balls' amount to a winning set, the game of skill comes into effect, whereby additional features on the game of chance may be awarded, dependent on where the ball comes to rest. However the game of skill cannot be played independent of the game of chance in those jurisdictions where such an arrangement would be unlawful.

Dependent upon the way in which the game is designed one or more balls may be awarded or 'flipper paddles' may be fitted to the playing area of the bed, to enable the player to keep the ball in play longer or aim towards the hole of their choosing.

The invention is not limited to the embodiment shown. Section one may house, instead of a conventional glass and reels, a video monitor where computer generated graphics may represent the reels and features. For instance the reels may spin, and award a win, or feature. By using a video monitor, the reels can be made to disappear and are replaced by a feature covering the whole screen, the reels being reinstated when the feature expires.

## CLAIMS

1. Amusement apparatus comprising a central processing unit and a game of chance in combination with a machine having a pin table game of skill, in which the central processing unit is arranged to present a minimum number of wins relative to the games paid for on the game of chance machine, one of the wins being arranged to enable play of the game of skill, the central processing unit also being arranged to present a play on the game of chance in the event of a win on the game of skill according to the total number of winnings already achieved and with regard to those already taken.
2. Apparatus according to Claim 1, in which the central processing unit is arranged to present a selected proportion of wins on the game of chance before the player is offered the opportunity to play the pin table type game of skill.
3. Apparatus according to Claim 1 or 2, in which the game of chance is a "Bingo" type machine.
4. Apparatus according to any preceding Claim, in which the pin table has ball receiving holes each of which corresponds to a feature of the game of chance so that when the player succeeds in getting a ball in a particular hole, a feature on the game of chance is made available for play.
5. Apparatus for amusement, substantially as described with reference to the accompanying diagrammatic drawings.



Application No: GB 9725956.8  
Claims searched: 1 to 5

Examiner: Alan Blunt  
Date of search: 13 March 1998

**Patents Act 1977**  
**Search Report under Section 17**

**Databases searched:**

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.P): A6H (HEG)

Int Cl (Ed.6): A63F 7/02

Other:

**Documents considered to be relevant:**

Category	Identity of document and relevant passage	Relevant to claims
X	US5342049 (WICHINSKY) - whole document	1 to 5
X	US4375286 (SEITZ) - whole document	1 to 5

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